

The Recreation Model

The Recreation Model has been developed over time as an aid in determining how recreational needs can be met and deficiencies can be satisfied. This section originally appeared in the 1970 – 1975 Indiana SCORP. It is not new information and for many recreation providers is rote. However, in the interest of assisting fledgling parks and recreation agencies identify how they fit into the big picture, it bears reprinting an updated version. The ideas presented in this chapter provide a comprehensive snapshot illustrating: 1) How the various types of recreation areas relate to each other. 2) The role of each type of recreation area in the total outdoor recreation system. 3) The general character of each recreation area. 4) Significant recreation resources outside of park boundaries emphasizing use and protection of natural elements.

A park system is composed of recreational areas or parks, each existing to meet the public's recreation needs in a particular area. Many communities are also providing a component of access in their park systems by incorporating trails and greenway corridors into their overall programs. In this chapter, access refers to methods of getting to a facility. In this discussion it is implicit that all facilities and programming accommodate users of all abilities. For the purposes of this plan, parks and recreation areas have been classified on the basis of their service areas as follows:

1. Regional Parks
2. District Parks
3. Community Parks
4. Neighborhood Parks
5. Block Parks (Tot lots)
6. Greenways/Linear Corridors (waterways or otherwise)
7. Trails
8. Natural Resource Areas



The Outdoor Recreation System

The concept of an Outdoor Recreation System extends beyond a single park or even a network of parks and recreation areas. Many entities are involved in the development and management of recreational areas and facilities for a community or region. Municipal, township, county, state and federal park systems are the most recognized and relied upon for their recreation resources, but increasingly private ventures such as golf courses, campgrounds, hunting and fishing camps, etc. are becoming integral parts of the recreation system. The facilities and activities these entities provide should be complementary and serve a particular geographic area or a particular recreation need. As funding for recreation continues to be tight, avoiding duplication of services and making sure the opportunities provided fit the community becomes paramount. For this reason alone we cannot emphasize enough that local agencies use the planning process and develop a master recreation plan that recognizes the function and relationships of all outdoor recreation systems and developments.

Figure 3-1a through 3-1d illustrate the relation of outdoor recreation opportunities in terms of one public park type to the others and the distribution pattern of the public parks in a typical public parks system. There are more small parks and they are closer to populated areas inferring they may be more heavily utilized. These parks provide a day-to-day recreation outlet. As the parks are developed farther away from populated centers, they may tend to increase in size and change in character from a developed activity focus to a more natural experience focus. Traditionally the recreation uses change from ball fields and playgrounds to camping, boating and fishing the farther away they are from a populated area. Increasingly, however, recreation complexes that provide for uses such as soccer, baseball, softball and trails are moving away from populations for the sole reason there is not enough available land to develop them closer. Each of these parks represents an important element in the total Outdoor Recreation System. The block park or tot lot is no less significant than the regional park. As a matter of fact, especially in urban areas, for many people the block park may be the most significant or the only recreation area available.

In addition to parks and recreation complexes, trail and greenway networks can provide a unique element in a park system. They may serve a multitude of very important functions within the system. Trails and greenways provide defined and unhindered access to nature, they also provide connections between park components that make a cohesive park, recreation and open space system. They provide additional safety by allowing for uninterrupted pedestrian movement within a community. Trails can connect housing areas to schools and shopping areas while greenways provide a natural habitat corridor for wildlife. Man-made corridors and trails in many areas provide much needed access to recreational opportunities that otherwise would not exist.

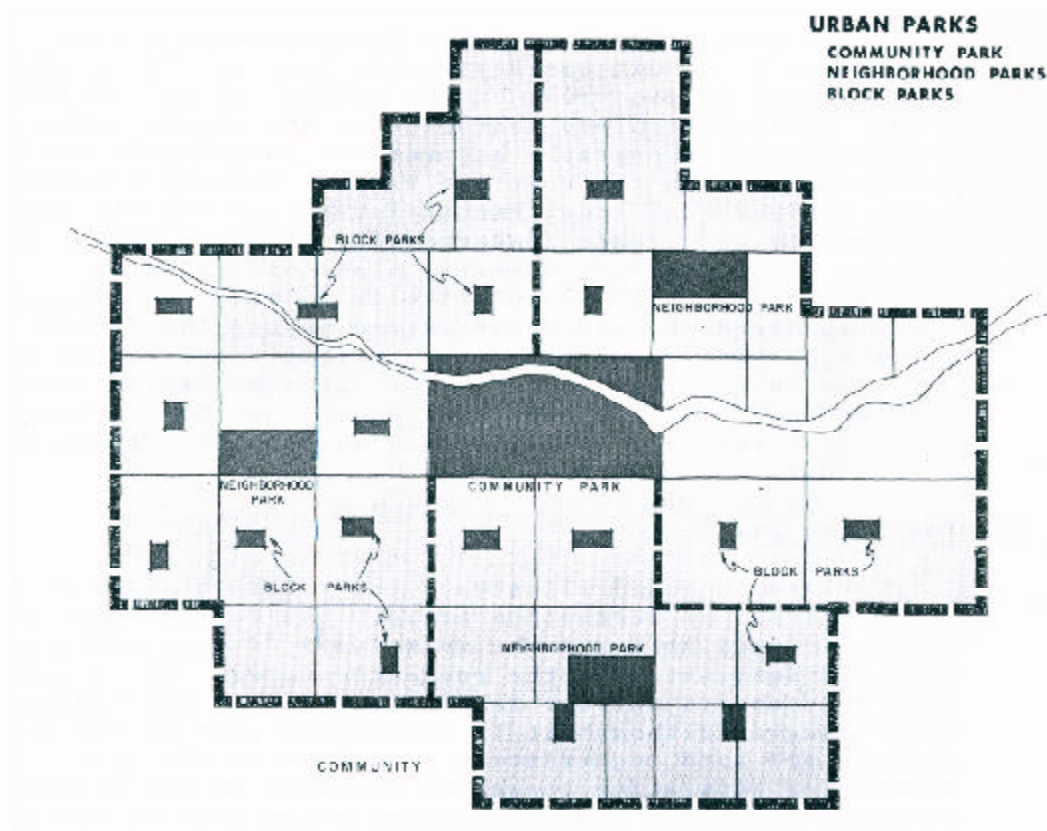


Figure 3-1a



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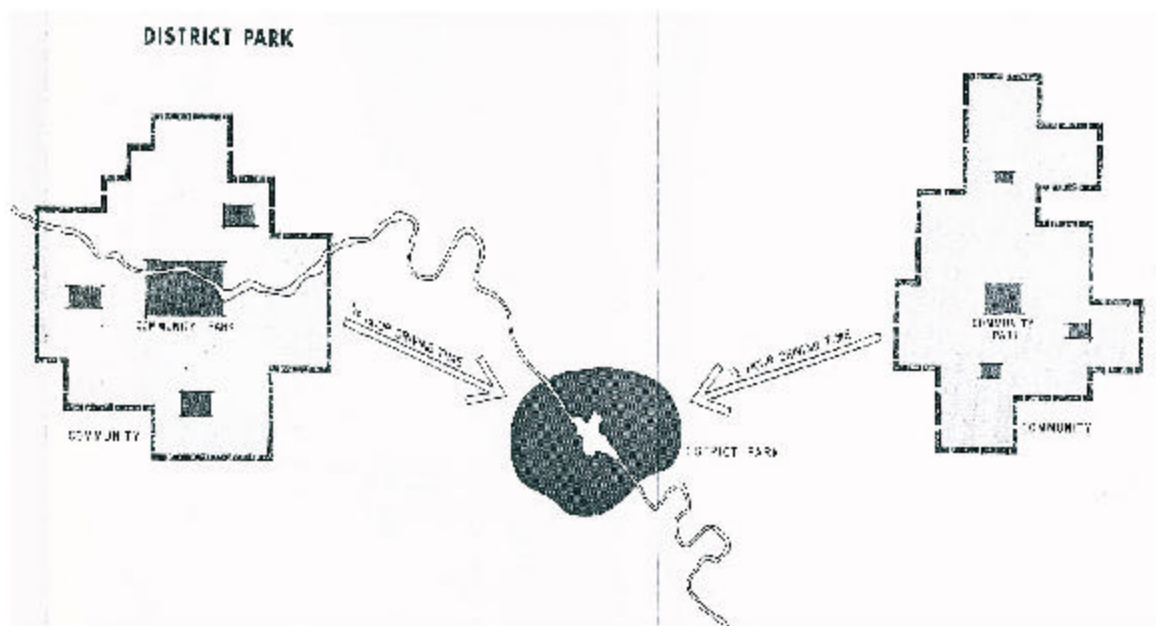


Figure 3-1b

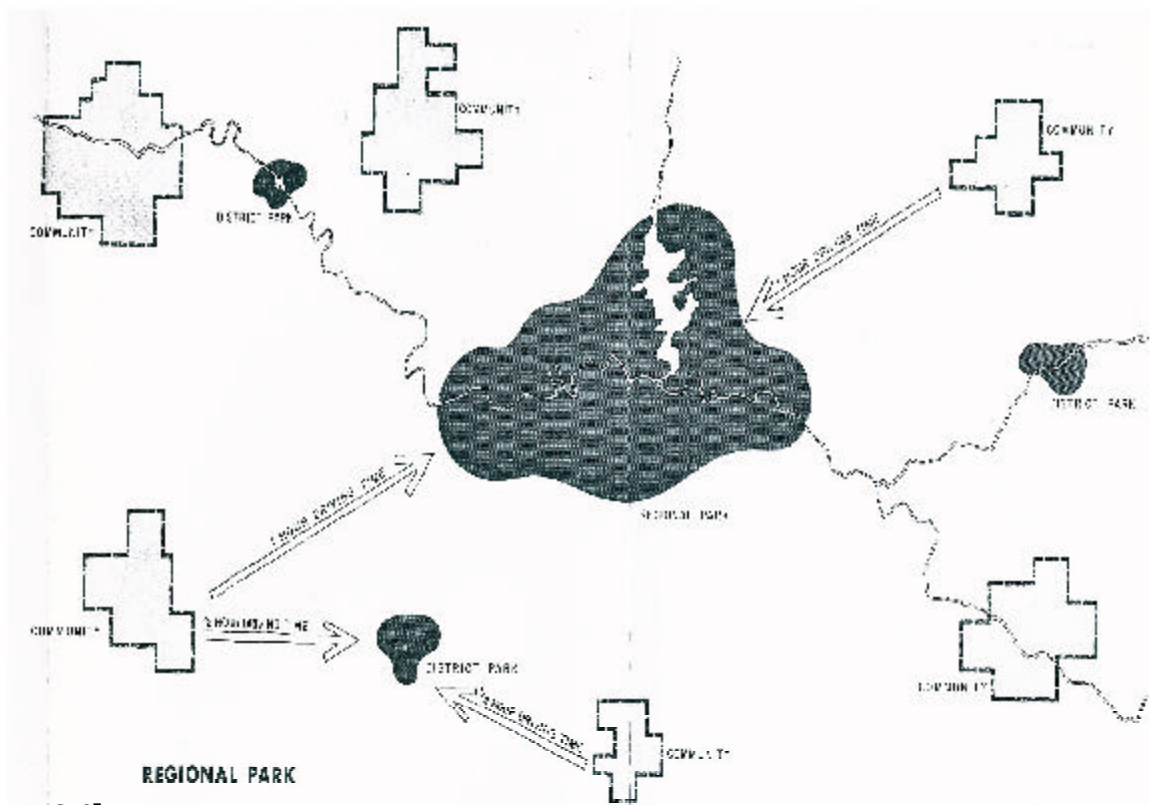


Figure 3-1b

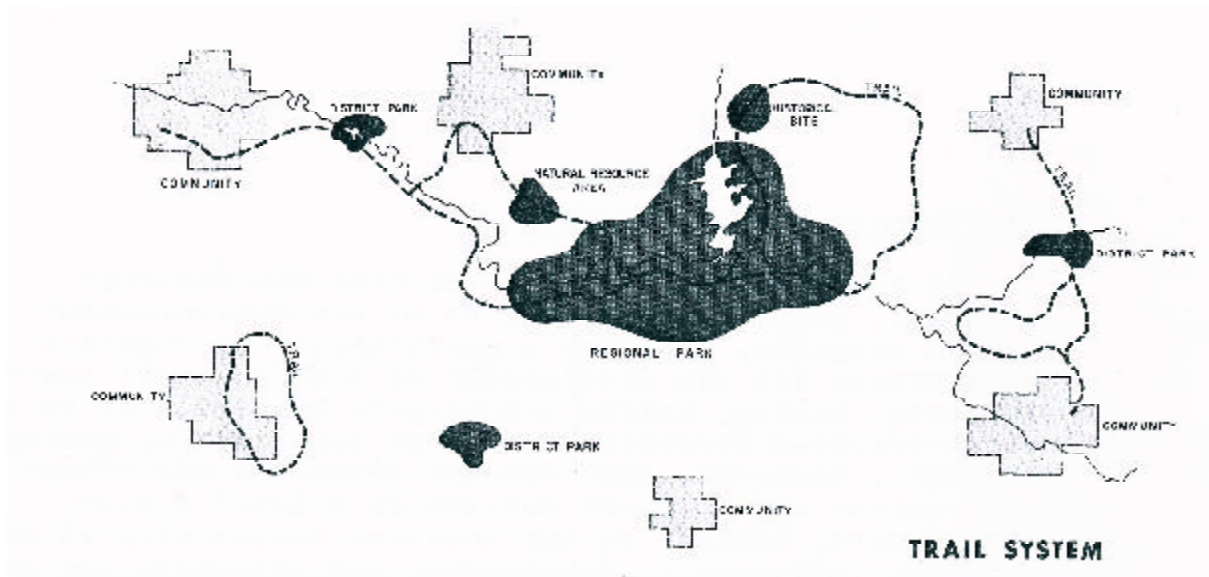


Figure 3-1d



Park Concepts

Figures 3-2a,b,c, and d illustrate the relative sizes of the various types of recreation areas. The recreational facilities in each area and the relative area requirements of each use designated in the recreation area are also outlined. Note the support acreage is not included in the “undeveloped land” diagram although it is considered part of the total undeveloped land requirements specified in the text. The reason for separating these two elements in the diagram is that, while the support acreage helps reflect the open space character of the total park, it is an integral and essential part of the specific use area whether or not other open space is provided.

Figures 3-3 through 3-7 show capacity of a specific park size for each of the park categories. Capacity is based on the concept of each park, as previously discussed, and on guidelines for each type of use. The capacities do not take into account the variables that can affect the total capacity, such as, terrain, wetlands, water etc.

The circles in the diagram represent the type of use, acreage requirements, number of units and daily use capacity.

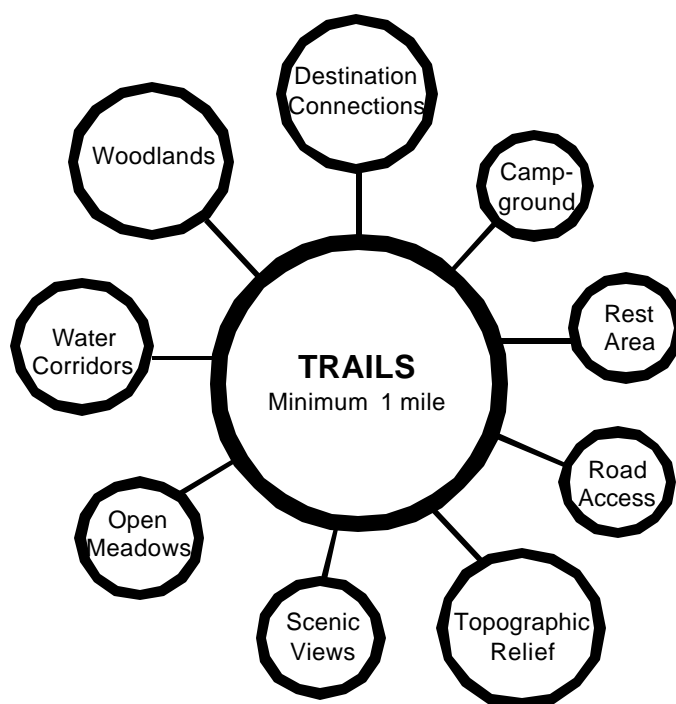


Figure 3-2a. Trail Characteristics

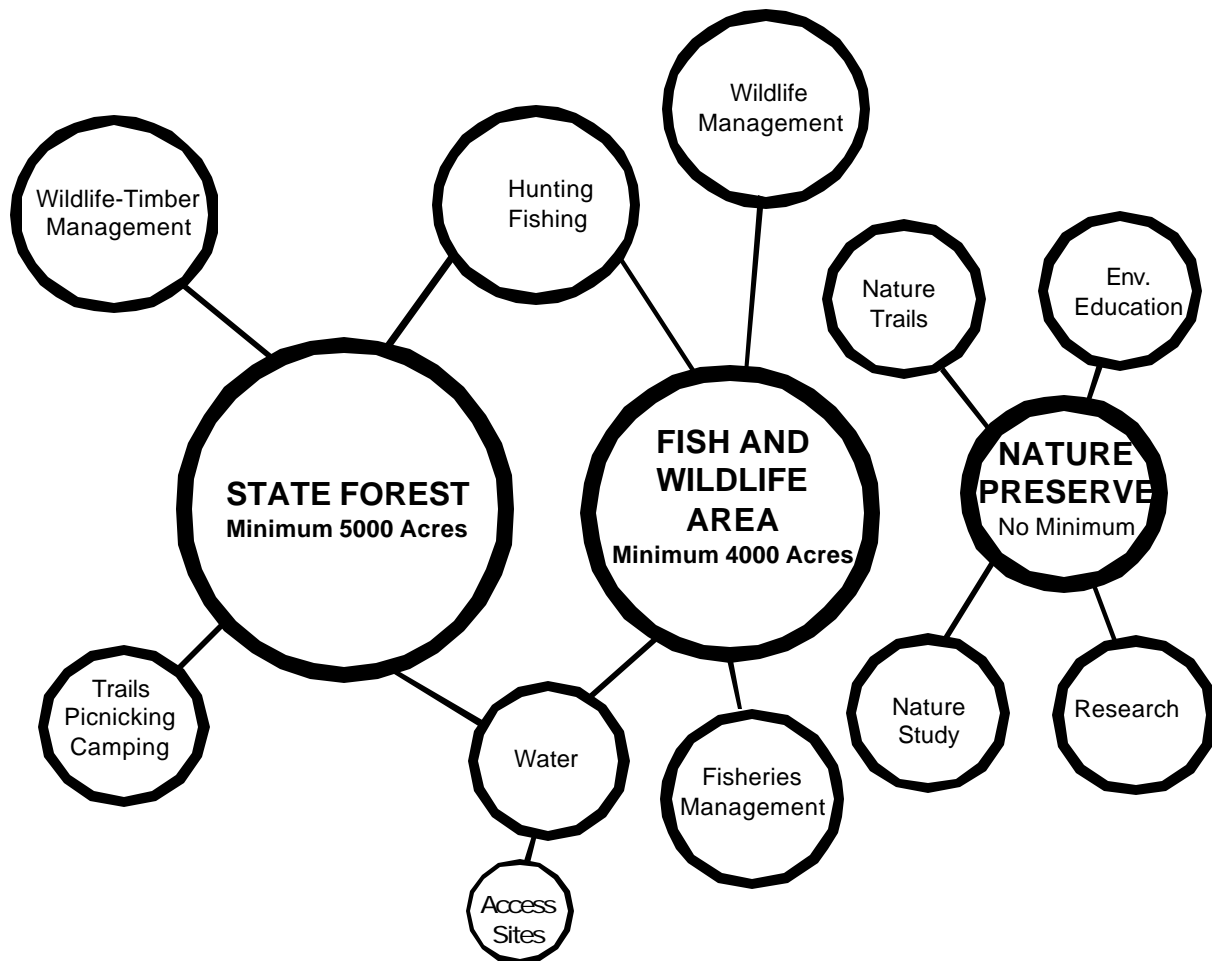


Figure 3-2b. Natural Resource Area Characteristics



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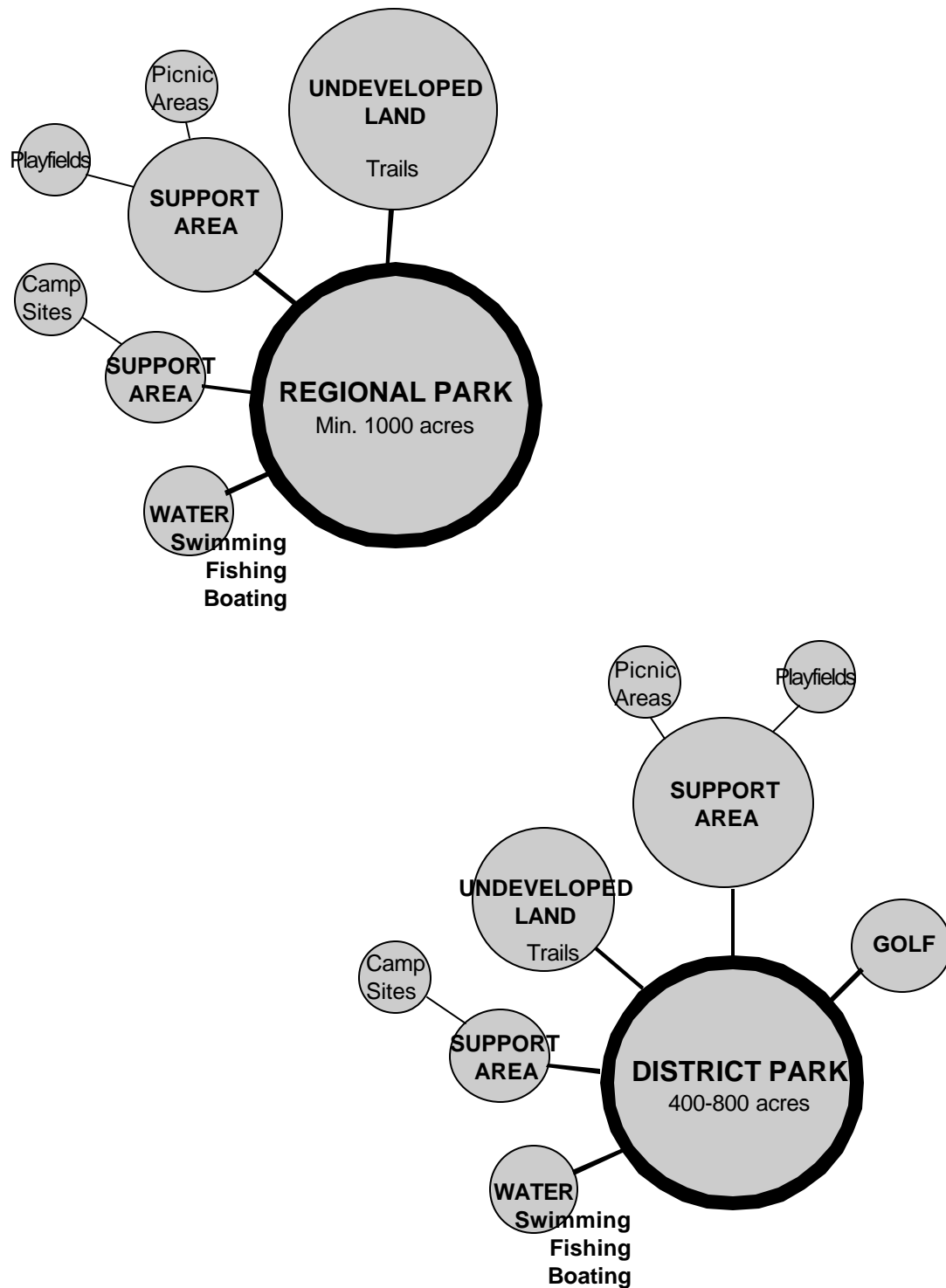


Figure 3-2c.

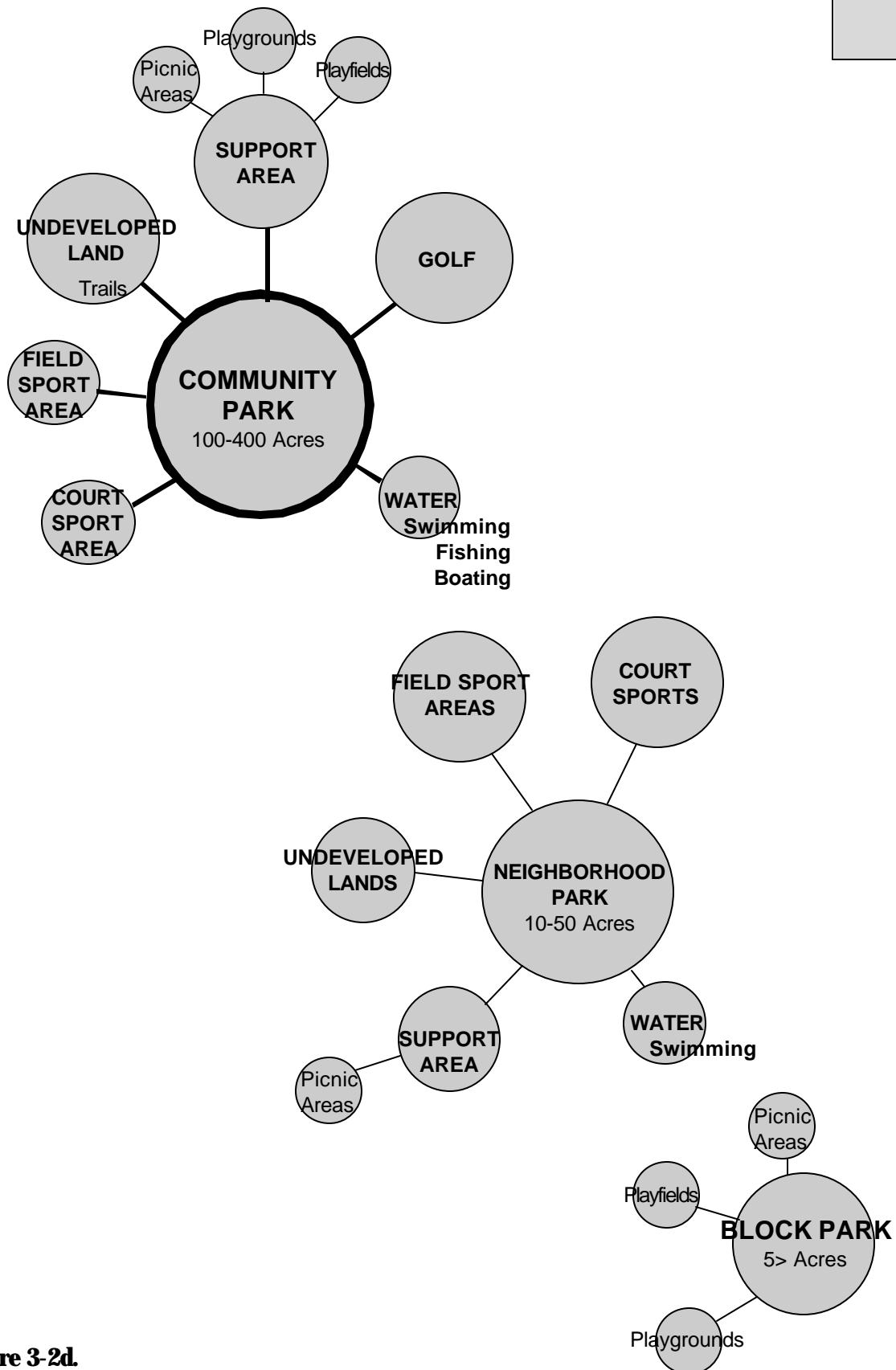


Figure 3-2d.



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Regional Park

Purpose: To provide outdoor recreational opportunities with strong emphasis on the natural environment.

Character: Vegetation and topographic variety, spaciousness and uniqueness are the important qualities of this park classification. Variety takes the form of wooded areas and meadows, steep terrain and level land, panoramic views and screened vistas. Spaciousness is exhibited in the form of visual and sound separation of facilities and activities and the retention of extensive areas of undeveloped lands. Uniqueness is defined in terms of the special geologic, biologic, historic and visual features.

Undeveloped Land: 50 – 80 percent of total park area, including support acreage.

Service Area: A Regional Park within one hour driving time of each Indiana resident.

Size: A minimum of 1,000 acres.

Special Features: Include lake, reservoir or stream for water-based activities.

Facilities and Activities:

1. Picnic Area
2. Campgrounds
3. Golfing in activity-dominated parks (see Comments)
4. Winter Sports
5. Playfields
6. Trails
 - Hiking
 - Bridle
 - Bicycling
 - Vehicle
7. Nature Study Area
8. Nature Center
9. Food and Lodging
10. Water Recreation
 - Swimming
 - Boating
 - Water Skiing / Personal Watercraft

Comments: Two general park types fit into the Regional Park classification. They are the activity-oriented parks, such as state recreation areas and some joint county parks, and the state parks. The essential difference between these two park types is that the recreation areas have more developed recreation activities and are less oriented towards natural features.

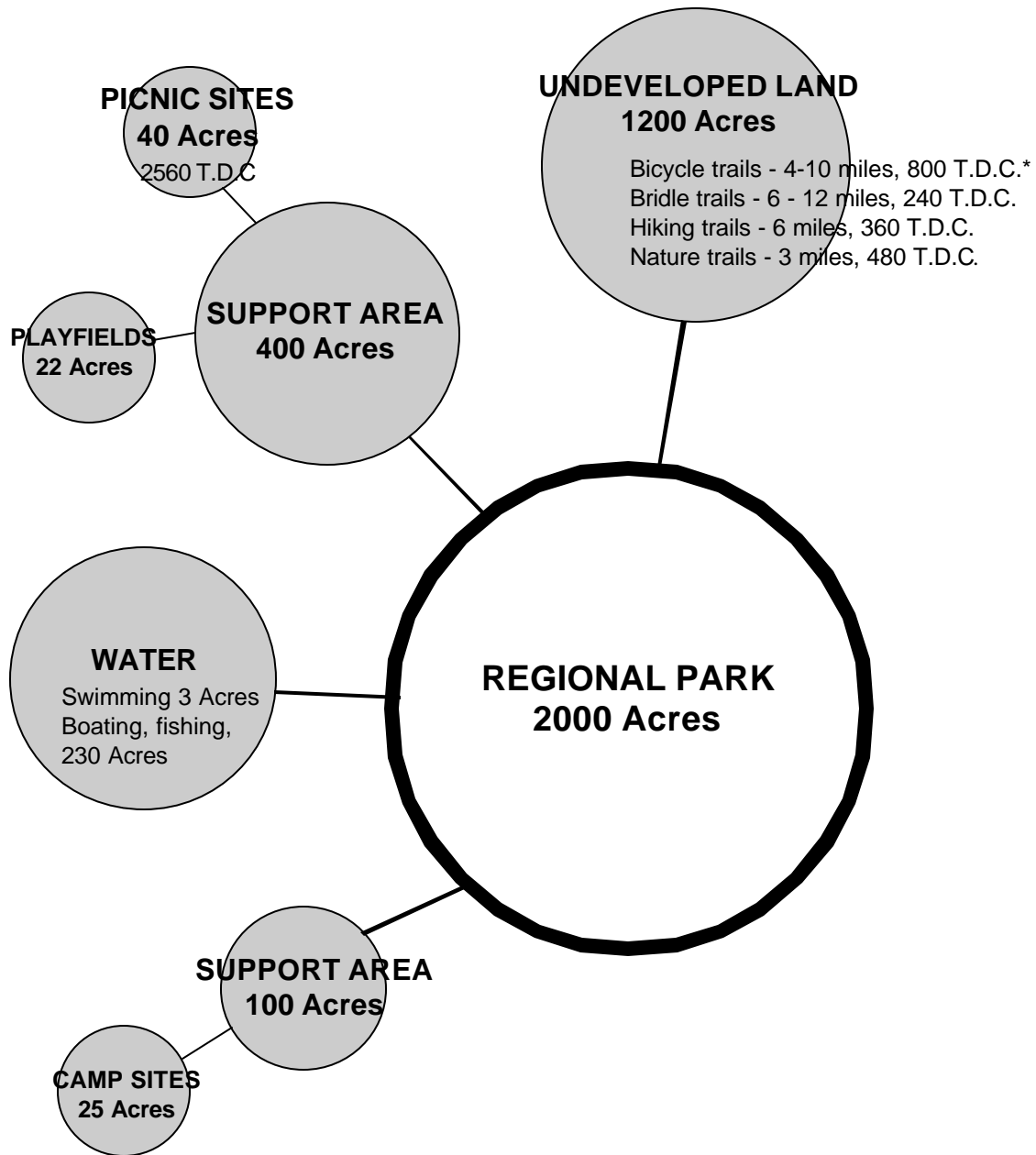


Figure 3-3. Typical Facilities & Capacity for a Regional Park

*T.D.C. = Total Daily Capacity



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District Park

Purpose: To provide easily accessible and more intensive recreation activity, for a region, within a natural environment, that is less extensive and dramatic than a regional park environment.

Character: Variety and openness are the important qualities of this park classification. Variety as defined in the regional park but with less dramatic terrain and vegetation features. Openness is expressed in the form of undeveloped land, wooded areas and scenic views.

Undeveloped Land: 40 – 60 percent of total park area, including support acreage.

Service Area: One-half hour driving time radius.

Size: 400 – 800 acres.

Special features: Should include water for swimming.

Facilities and Activities

1. Picnic Areas
2. Campgrounds
3. Golfing
4. Winter Sports
5. Playfields
6. Trails
 - Hiking
 - Bridle
 - Bicycle
 - Vehicle
7. Nature Study Area
8. Nature Center
9. Water Recreation
 - Swimming
 - Fishing
 - Boating

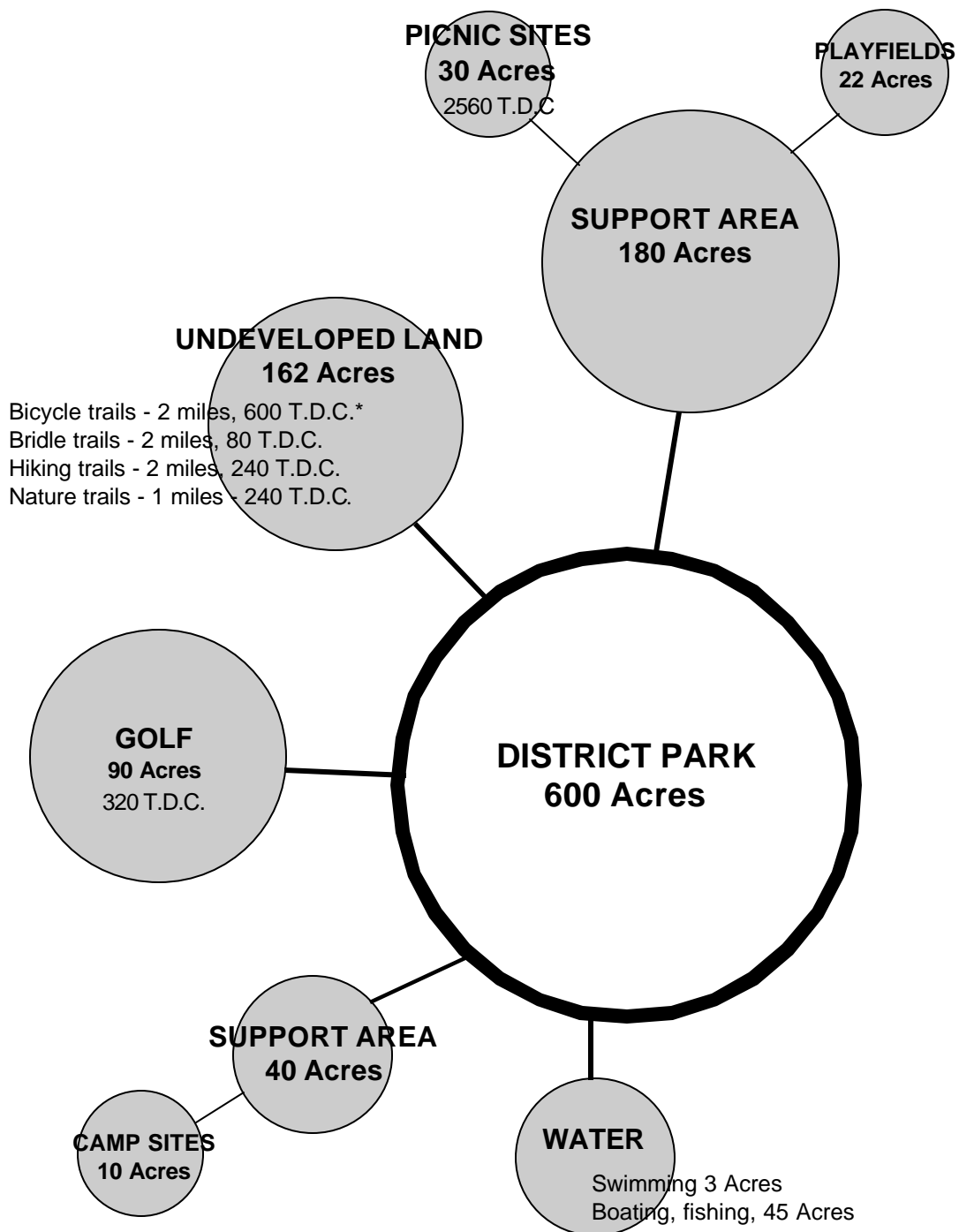


Figure 3-4. Typical Facilities & Capacity for a District Park

*T.D.C. = Total Daily Capacity



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Community Park

Purpose: To provide an activity-dominated recreation area with a moderate amount of managed undeveloped land that can sustain continued, heavy use.

Character: Variety and high use capacity are important qualities of this park classification. Variety in the form of moderate slopes, rolling land forms, partial tree cover. High use capacity in the form of good drainage, stable soil conditions, relatively level land. Many community parks, especially those in rural settings, include sports complexes for activities such as softball, baseball and soccer.

Undeveloped Land: 20 – 40 percent of total park area, including support acreage.

Service Area: Fifteen minute driving time radius.

Size: 100 – 400 acres.

Facilities and Activities:

1. Picnicking
2. Golf
3. Winter
4. Playgrounds
5. Playfields
6. Trails
 - Hiking
 - Bicycle
 - Bridle
7. Water Recreation
 - Swimming Pool
 - Fishing
 - Boating
8. Nature Study Area
9. Nature Center

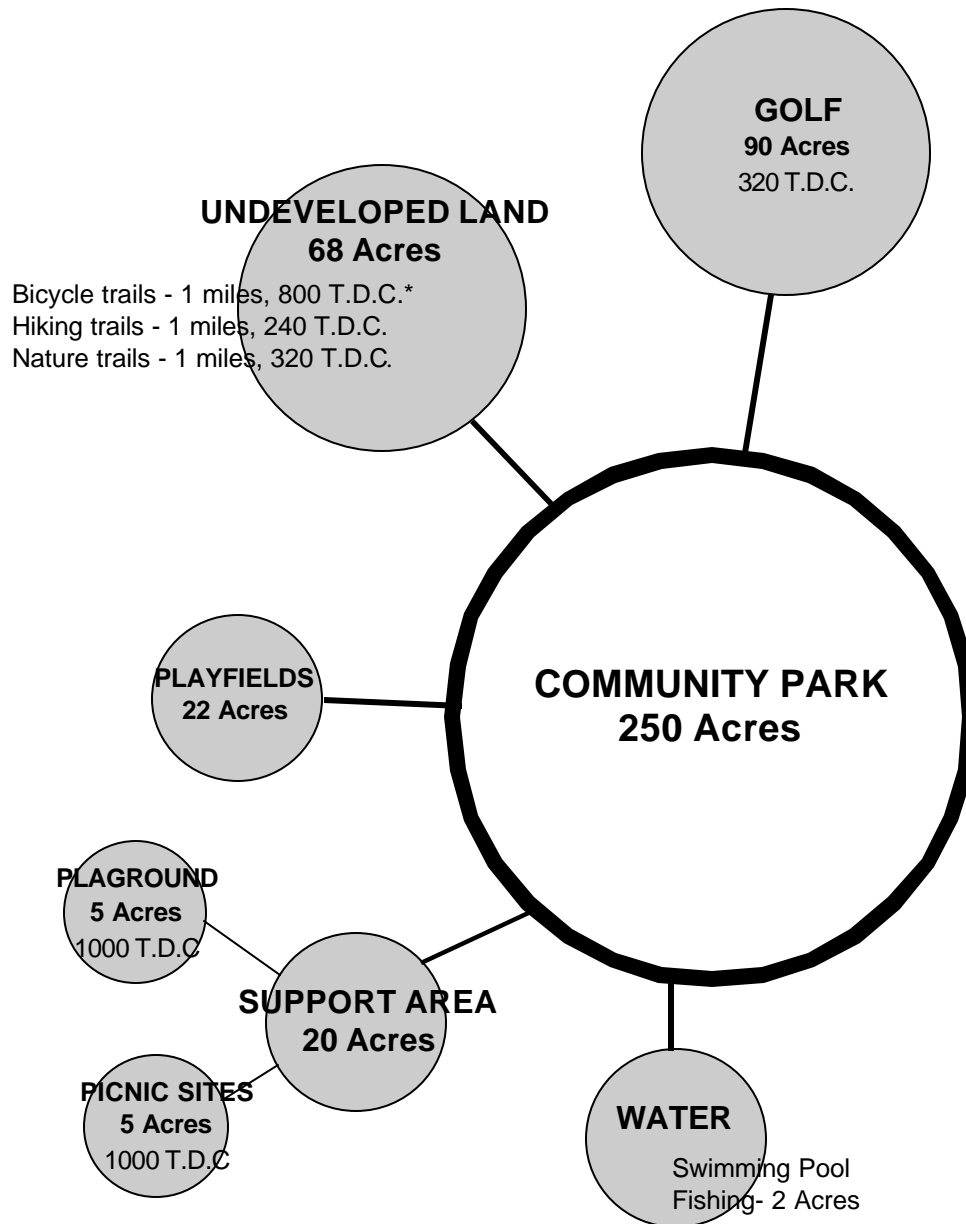


Figure 3-5. Typical Facilities & Capacity for a Community Park

*T.D.C. = Total Daily Capacity



Neighborhood Park

Purpose: To provide active and passive recreation facilities for all age groups within walking distance to urban neighborhood residents.

Character: High use capacity and access are the important qualities of this park classification. High use capacity means site has good drainage, open areas and rolling to level land. Access means there are minimal road, terrain and structural barriers between the park and residents.

Undeveloped Land: 15 – 30 percent of total park area, including support acreage.

Service Area: Twenty minute walking time radius.

Size: 5 – 50 acres.

Special Features: Develop in conjunction with school grounds whenever feasible.

Facilities and Activities:

1. Playgrounds
2. Playfields
3. Recreation Building/Community Center
4. Swimming
5. Skateboard Area
6. Greenspace, Wooded Areas
7. Walking Paths

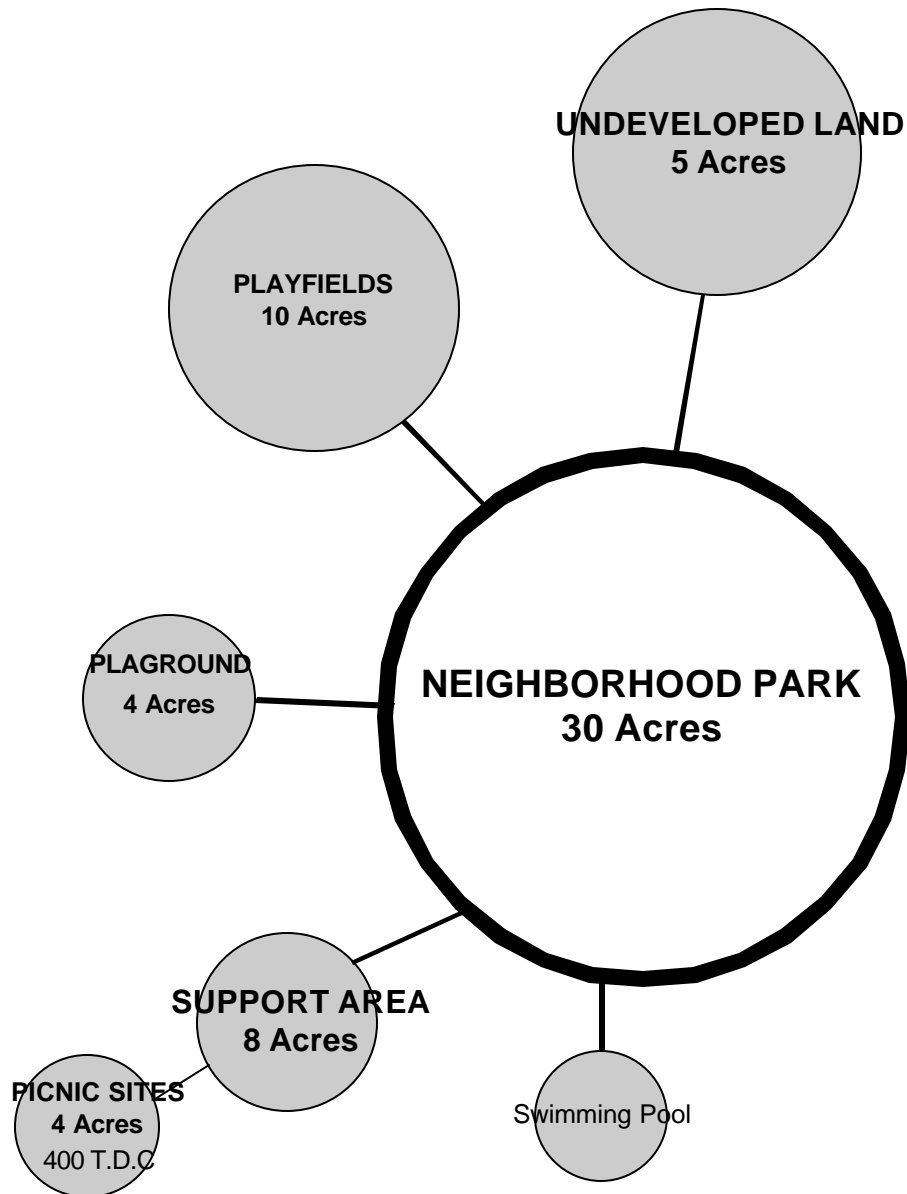


Figure 3-6. Typical Facilities & Capacity for a Neighborhood Park

*T.D.C. = Total Daily Capacity



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Block Park / Tot lot

Purpose: To provide protected areas for young children in residential areas and space and activities for families and the elderly.

Character: High use capacity and access are the important qualities of this park classification. High use capacity takes form in of good drainage, and level land. Access is provided by designing no road or other physical barriers between residents and park.

Undeveloped Lane: 10 – 20 percent of total park area.

Service Area: Five minute walking time radius.

Size: ¼ - 5 acres.

Facilities and Activities:

1. Playground
2. Shelter (s)
3. Sitting / Picnicking Area
4. Court Area
 - Basketball
 - Horseshoes
 - Shuffleboard
 - Tennis
5. Greenspace
6. Walking Paths

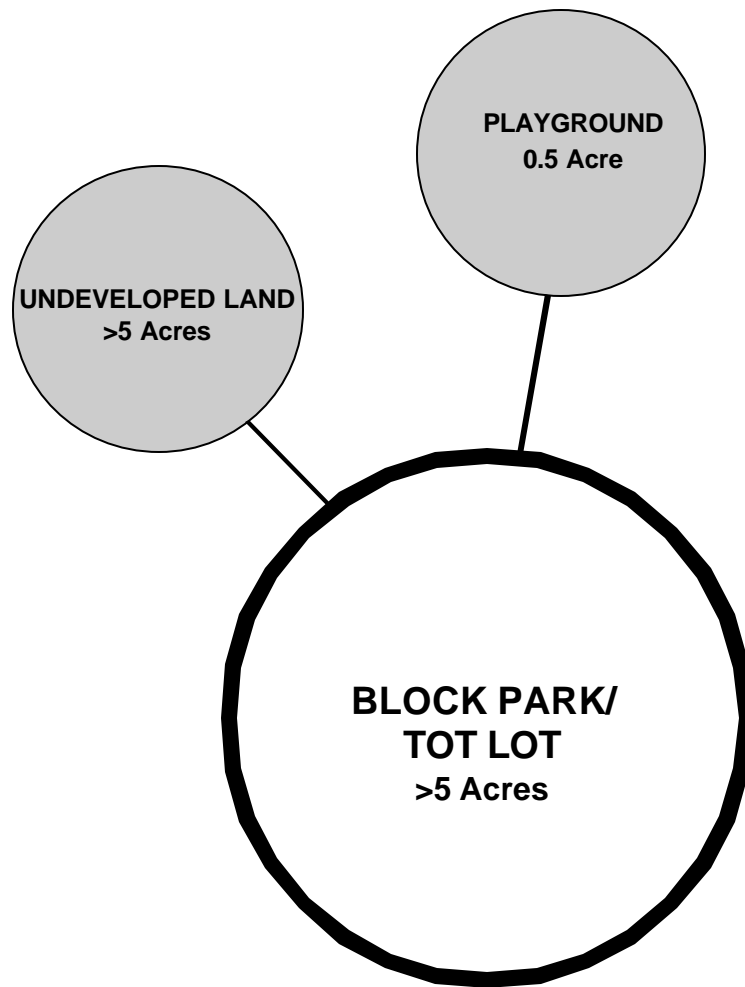


Figure 3-7. Typical Facilities & Capacity for a Block Park / Tot Lot

*T.D.C. = Total Daily Capacity



Natural Resource Areas

Purpose: Protect, conserve and perpetuate outstanding natural resources. It should be noted that as communities become more successful and development continues to expand, in many cases openspace becomes the outstanding natural resource to be protected. Greenways provide movement corridors for wildlife and connections between habitats.

Character: The character of the natural resources area is determined by the type(s) of natural resource to be managed.

Undeveloped Area: 100% (Not including support facilities)

Service Area: Sites are selected more on the basis of the location of the resource rather than on the proximity to population centers.

Size: Generally large, up to 4000 acres or more, with the exception of Nature Preserves, which may be small to protect unique features.

Special Features: The natural resources areas can be divided into four categories.

A. Forests - Provides a multiple use program in which wildlife, timber management and outdoor recreation play major roles. Recreation is becoming increasingly important, but only in terms of low-density activity.

Facilities and Activities

1. Picnicking
2. Camping
3. Trails
 - Hiking
 - Bridle
4. Water Recreation
 - Fishing
 - Boating
5. Hunting
6. Wildlife Observation and/or Photography

B. Fish and Wildlife Areas – The primary function of this resource area is to manage and perpetuate wildlife for hunting and fishing purposes. Increasingly, these areas provide significant opportunities for wildlife observation and photography. Other forms of recreation are less emphasized because they are often in conflict with the environment required to sustain the desired level of wildlife.

Facilities and Activities:

1. Camping
2. Fishing / Boating
3. Hunting
4. Nature / Wildlife Observation and Photography

C. Nature Preserves – The only types of recreation activities generally permitted in the nature preserve are hiking and observation. These areas are dedicated to preserve single, unique biologic or geologic features or extensive ecological communities.

Facilities and Activities:

1. Nature Trails
2. Nature Study
3. Research
4. Environmental Education

D. Greenways – Greenways emphasize use more than the other natural resource type facilities. Trails related activities are generally associated with greenways. Water recreation can be a primary feature of greenways as riparian corridors are ideal greenway settings. Upland greenways connect communities and existing parks. Abandoned railway lines or utility corridors also provide opportunities for greenway development.

Facilities and Activities:

1. Nature Study
2. Research
3. Environmental Education
4. Hiking/Walking/Jogging Trails
5. Fishing/Boating
6. Bicycle Trails
7. Bridle Trails
8. Water Trails (motorized and non-motorized)
9. Launching Areas
10. Transportation (motorized and non-motorized)



Trail Systems

Purpose: Trails within a park setting provide access to the natural environment. Connector trails emphasize safe travel for users. Trails may be a link to a destination or a destination themselves. Multi-use and single use trails accommodate activities such as hiking, jogging, walking, in-line skating, horseback riding, bicycling and off-road vehicle riding. Water trails provide destination activities for traveling by canoe, kayak or boat.

Character: The character of the trail is determined by the type(s) of setting in which it is located and by the intended purpose of the trail. Accessibility is inherent in terms of relative ease of movement along the trail.

Undeveloped Area: All areas except access points, support areas (i.e. parking, restrooms), and the trail.

Service Area: Proximity is based on the intended purpose (s) of trail. Park trails support service areas recommended by the type of park. Generally, trails should be located within walking distance for community based trails and within 20 minutes driving radius for long distance trails.

Size: Where possible, 1 mile or more, depending on intended use and location.

Special Features: Trails located outside parks and organized recreation areas should lead to or past points of interest. These points of interest may be scenic, social, historic, cultural, or activity-oriented recreation areas. The width of trails varies according to natural conditions, but the surface must safely accommodate the intended use.

Facilities and Activities: (Generally maintained in conjunction with trail facility.)

1. Camping
2. Hiking/Walking Trails
3. Jogging Trails
4. Bicycle Trails
5. Vehicle Trails
6. Bridle Trails
7. Water Trails (motorized and non-motorized)
8. Launching Areas
9. Nature Study
10. Transportation (motorized and non-motorized)

Extreme care must be taken when implementing multi-use trails. Compatibility of activities and impact on user experience must be considered. Where possible, the various types of trails should be separated by developing lanes in the trail corridor to minimize potential user conflicts.

Recommended Recreation Standards

Nationally, there has been a trend away from a standards approach to estimating the need for recreation. It is recognized that the needs of individual communities can vary significantly. Each Outdoor recreation provider would be well served to look at all aspects of the recreation delivery system in their jurisdiction. A facilities per capita approach may not provide all of the information necessary to fully benefit the community. However, many parks and recreation officials, in their ever expanding search for ways to justify providing opportunities are looking for per capita standards by which to evaluate their outdoor recreation supply and justify their recreation decisions. For that reason, the National Recreation and Park Association recommended standards for per capita supply are included in this document. These standards were established in 1983 as a guide for recreational facilities development. For more information regarding recreation activity and facility standards, please refer to the *References Section*.

Recommended Court Recreation Standards

Activity/ Facility	Recommended Space Requirements	Recommended Size and Dimensions	Recommended Orientation	Number of units per Population	Service Radius	Location Notes
Badminton	1620 sq.ft.	Singles - 17' x 44' Doubles - 20'x44' with 5' clearance area on all sides.	Long axis north - south.	1 per 5000	1/4-1/2 mile	Usually in school, recreation centers with safe walking or bike access.
Basketball 1. Youth 2. High School 3. Collegiate	2400-3036 sq.ft. 5040-7280 sq.ft. 5600-7980 sq.ft.	46'-50'x84' 50'x84' 50'x94' with 5' clearance area on all sides.	Long axis north - south.	1 per 5000	1/4-1/2 mile	Usually in school, recreation centers with safe walking or bike access. Active recreation areas and parks.
Handball (3-4 wall)	4 wall - 800 sq.ft. 3 wall - 1000 sq.ft.	20'x40' minimum of 10' to rear of 3-wall court. 20' min. overhead clearance.	Long axis north -south. Front wall at north end.	1 per 20,000	15-30 min. travel time	4-wall usually indoor as part of multi-purpose facility. 3-wall usually outdoor in park or school area.
Tennis	Minimum of 7,200 sq.ft. single court (2 acres for complex)	36'x78'. 12' clearance on both sides; 21' clearance on both ends.	Long axis north - south.	1 court per 2000	1/4-1/2 mile	Best in batteries of 2-4. Located in neighborhood or community park or adjacent to school.
Volleyball	Minimum of 4,000 sq.ft.	30'x60'. Minimum 6' clearance on both ends.	Long axis north - south.	1 court per 5000	1/4-1/2 mile	Same as other court activities.
Multiple Recreation Court (basketball, volleyball, tennis)	9,840 sq.ft.	120'x80'	Long axis of courts with primary use is north-south.	1 per 10,000	1-2 miles	



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Recommended Field Recreation Standards

Activity/ Facility	Recommended Space Requirements	Recommended Size and Dimensions	Recommended Orientation	Number of units per Population	Service Radius	Location Notes
Baseball						
1. Official	Minimum 3.0-3.85 acres.	Baseline - 90' Pitching distance- 60 1/2' Foul lines - 320' min. Center field - 400'+	Locate home plate so pitcher throwing across sun and batter not facing it. Line from home plate through pitchers mound run east-north-east.	1 per 5,000 lighted 1 per 30,000	1/4-1/2 mile	Part of neighborhood complex. Lighted fields part of community complex or adjacent to schools.
2. Little League	Minimum 1.2 acres.	Baselines - 60' Pitching distance- 46' Foul lines - 200' Center field - 200'-250'				
Field Hockey	Minimum 1.5 acres.	180'x300' with a minimum of 10' clearance on all sides.	Fall season - long axis northwest to southwest. For longer periods, north to south.	1 per 20,000	15-30 min. travel time	Usually part of baseball, football, soccer complex in community park or adjacent to high school.
Football	Minimum 1.5 acres.	160'x300' with a minimum of 6' clearance on all sides.	Same as field hockey.	1 per 20,000	15-30 min. travel time	Same as field hockey.
Soccer	1.7 to 2.1 acres.	195'x330' to 225'x360' with a 10' minimum clearance on all sides.	Same as field hockey.	1 per 10,000	1-2 miles	Number of units depends on popularity. Youth soccer on fields adjacent to schools or neighborhood parks.
Running Track (1/4 mile)	4.3 acres	Overall width - 276' Length - 600.02' Track width for 8 to 4 lanes is 32'.	Long axis in sector from north to south to north-west-south east with finish line at northerly end.	1 per 20,000	15-30 min. travel time	Usually part of high school, or in community park complex in combination with football, soccer, etc.
Softball	1.5 to 2.0 acres	Baselines 60' Pitching distance - 46'; min. 40' women. Fast pitch field radius from plate - 225' between foul lines. Slow pitch - 275' (M) 250' (F).	Same as baseball.	1 per 5,000 (if also used for youth baseball)	1/4-1/2 mile	Slight difference in dimensions for 16" slow pitch. May also be used for youth baseball.

Recommended Swimming Recreation Standards

Activity/ Facility	Recommended Space Requirements	Recommended Size and Dimensions	Recommended Orientation	Number of units per Population	Service Radius	Location Notes
Swimming Pools	Varies on size of pool and amenities. Usually 1/2 to 2 acres. Diving - enough depth to accommodate 1m and 3m diving boards.	Teaching - min. of 25 yards x 45' even depth of 3 to 4 feet. Competitive - min. of 25 m x 16 m. Water surface - 27 sq.ft per swimmer. Deck:water ratio - two to one.	None	1 per 20,000	15-30 min. travel time	Pools for general community use should be planned for teaching, competition and recreation. Located in community park or school site.
Beach Areas	N/A	50 sq.ft. land and 50 sq.ft. of water per user. Turnover rate = 3 3-4 acres support acreage per 1 acre of beach.	N/A	N/A	N/A	Sand bottom with maximum of 5% grade. Beach segregated from boating facilities.

Recommended Golf Recreation Standards

Activity/ Facility	Recommended Space Requirements	Recommended Size and Dimensions	Recommended Orientation	Number of units per Population	Service Radius	Location Notes
Driving Range	13.5 acres fo minimum of 25 tees.	900'x690' Add additional 12' width for each tee.	Long axis south-west-northeast with golfer driving toward northeast.	1 per 50,000	30 minutes travel time	Part of golf course complex. As a separate unit, may be privately operated.
Golf						
1. Par 3 (18-hole)	50-60 acres	Average length - varies 600 - 2700 yards.	Majority of holes on north - south axis.	N/A	1/2 to 1 hour travel time	Course should be located within 25 mile radius from population center.
2. 9 - Hole Standard	Minimum 50 acres	Average length 2250 yards.		1 per 25,000		9-hole course can accommodate 350 people/day.
3. 18 - Hole Standard	Minimum 110 acres	Average length 6500 yards.		1 per 50,000		18-hole course can accommodate 500 - 550 people/day.



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Recommended Winter Recreation Standards

Activity/ Facility	Recommended Space Requirements	Recommended Size and Dimensions	Recommended Orientation	Number of units per Population	Service Radius	Location Notes
Ice Hockey	22,000 sq.ft. including support area.	Rink 85'x200' (minimum 85'x185'). Additional 5000 sq.ft. support area.	Long axis north - south.	indoor - 1 per 100,000 outdoor - depends on climate.	1/2 - 1 hr travel time	Climate important consideration. Best as part of multi-purpose facility.

Recommended Shooting Sport Recreation Standards

Activity/ Facility	Recommended Space Requirements	Recommended Size and Dimensions	Recommended Orientation	Number of units per Population	Service Radius	Location Notes
Archery Range	Minimum 0.65 acres	300' length x min. 10' wide between targets. Roped clear space on sides of range. Minimum of 30', clear space behind targets. Minimum of 90'x45' with bunker.	Archer facing north (+/-) 45 degrees.	1 per 50,000	30 minutes travel time	Part of regional or metro park complex.
Skeet and Trap Field (8 stations)	Minimum 30 acres	All walks and structures occur within an area approx. 130' wide by 115' deep. Minimum cleared area is contained within two superimposed segments with 100-yard radii (4 acres). Shot-fall danger zone is contained within two superimposed segments with 300 yard radii (36 acres).	Center line of length runs northeast - south - west with shooter facing northeast.	1 per 50,000	30 minutes travel time	Part of regional or metro park complex.

Recommended Trails Recreation Standards

Activity/ Facility	Recommended Space Requirements	Recommended Size and Dimensions	Recommended Orientation	Number of units per Population	Service Radius	Location Notes
Trails	N/A	Well defined trailhead 10' width, Multiple-use trails 12'. Max. average grade 5%, not to exceed 15%. Rural trail capacity 40 users/day/mile. Urban trail capacity 90 users/day/mile.	N/A	1 system per region	N/A	